

# Corey Staten

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## EXPERIENCE

### REINFORCEMENT LEARNING GRANT | FROM THE MACHINE INTELLIGENCE RESEARCH INSTITUTE

July 2018 – September 2018

- Implemented and debugged reinforcement learning algorithms in TensorFlow, including: vanilla policy gradient, A2C, proximal policy optimization, and deep Q-networks + variants.
- Reviewed the reinforcement learning literature with a focus on influential papers in deep RL from the last few years.

### GRADUATE STUDENT | THE OHIO STATE UNIVERSITY

September 2014 – May 2018

- Developed new algorithms in the theory of computads, a branch of category theory.
- Released a Python library implementing these algorithms, and used this library to solve computational problems involving computads.
- Taught mathematics courses, achieving consistently high student approval ratings.

### CONSULTANT | SELF-EMPLOYED

February 2013 – August 2014

- Designed and built a Ruby on Rails platform(WEx) for peer review of writing assignments, used by thousands of students in multiple runs of a massive online course by the English department at The Ohio State University.
- Provided project management and support for the WEx team, including: deployment, database management, integration with existing services, and coordination with Ohio State's technology and accessibility teams.
- Helped design and build initial versions of Ximera, a web platform for interactive mathematics course materials.
- Worked with the Office of Disability Services at The Ohio State University to develop features for an accessibility focused media player(AblePlayer), increasing its ADA compliance.

### PROGRAMMER | CALLCOPY

March 2011 – February 2013

- Researched and developed the core technical components for a new workforce management product, including call volume forecasting, simulation, and employee scheduling.
- Did full-stack development of web applications and telephony device integrations.

## EDUCATION

THE OHIO STATE UNIVERSITY | PH.D. IN MATHEMATICS, AUGUST 2018

| M.S. IN MATHEMATICS, MARCH 2011

| B.S. IN MATHEMATICS, JUNE 2009

## SKILLS

### DOMAINS

Machine Learning  
Reinforcement Learning  
Full-stack Development  
Mathematical Software  
Research

### KEY TECHNOLOGIES

Python  
TensorFlow  
SQL  
R  
JavaScript